## ABSTRACT

[0066] A method of calibrating a gyro (42) of a spacecraft (14) may include determining a yaw attitude residual of the spacecraft. Roll gyro bias residual is determined in response to the yaw attitude residual. The gyro (42) is calibrated in response to the roll gyro bias residual. A method of calibrating a gyro (42) of a spacecraft (14) may alternatively include disabling gyro calibration, gain scheduling, or resetting attitude and gyro bias covariance, for selective axes, for a yaw transient period. The gyro (42) is calibrated in a nominal fashion after completion of the yaw transient period.